



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D6101-007
Job Sheet 177132



5077236

Part No: D6101-007

Job Qty: 10 ea

Part Name: Saddle Billet



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/7/18

Job Tracking No:

Due Date: 5/16/18

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV B

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	10 pcs		5/16/18	0.00	0.00	Purchasing		JUN 0 1 2018
110	Packaging	10 pcs		5/16/18	0.00	0.00	Packaging2		JUN 0 1 2018
120	QC	10 pcs		5/16/18	0.00	0.00	QC6		JUN 0 1 2018
130	Packaging	10 pcs		5/16/18	0.00	0.00	Packaging3-2		
140	QC21-SA	10 Ea		5/16/18	0.00	0.00	QC21		21 JUN 0 7 2018

Part Op 100 - Issue P/O: 39599 b) 7.750" x 8.250" x 2.50" thick d) Grain direction along 7.750" length

Descriptions: 110 - Ensure material certification is attached

120 - Ensure Material certification comply to Dwg D6101

130 - LOCATION: MAT041

CZ18/05/07 x 10 pcs

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-007P	7075-T7351 8.25X7.75X2.5	10 pcs (1 ea)	100-Purchasing	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6101-007P	10	20	0

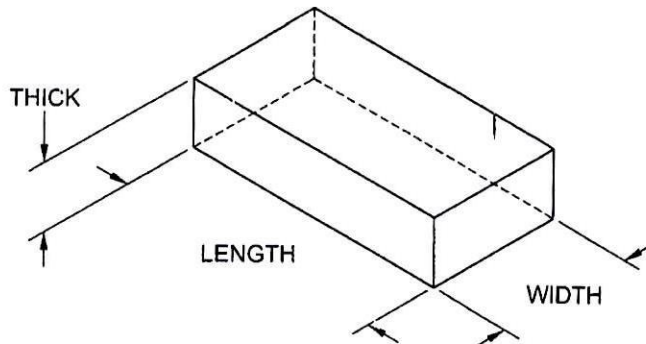
Part Specifications

Specifications could not be found.

Plex 5/7/18 12:52 PM dart.lavoie.chantal

DAS
11
9-89

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/WP

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6101-007
 DATE: JUN 01 2018

PO / BATCH NO.: 039599/5077232

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 10 PCS
 QUANTITY INSPECTED: 10 PCS
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.500
 THICKNESS RECEIVED: 2.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	QA-A-250/12
CORRECT THICKNESS	☒ Y N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	Heat # 9422779
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> DATE: <u>11 JUN 01 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3610198

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 31-MAY-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOULIN		BOL No 3610198-2		

Shipment Details	Final Destination Branch - TOR
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Order No 5112786	Line No 2	Item No 752241.MO	Description 2.5000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT RECTANGLE TO 8.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.75")) X 7.75 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.75")) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/i2	
Purchase Order No 39599		Part Number YOUR ITEM NUMBER: D6101-007	Ordered Qty 50.00 PCS	Invoice Qty 10.00 PCS

Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS
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Delivery No. 121827750	Mill/Source CONSTELLUM ROLLED PRODUCTS	Heat Number 	Mech Id	PCS 10	Width (IN)	Length (IN)	Shipped Qty(LBS) 165.3169
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We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A. M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned.

Date Printed: 31-MAY-2018 02:58:13 PM

Revised Certification



CERTIFIED TEST REPORT Constellium Rolled Products Ravenswood, LLC

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A M CASTLE & COMPANY
4175 ROYAL DRIVE
KENNESAW GA
30144
US

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110659346		4776		INCLUSION		Serial: 20180510-0110859346		Pg 1 of 3	
CUSTOMER PURCHASE ORDER NO. & ITEM 455651						Constellium ORDER NO. 234774					
ALLOY 7075		CLAD		TEMPER T7351		GAUGE 2.50000 in 63.50 mm		WIDTH 48.50000 in 1,232 mm		LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078J											
PART NUMBER 752241				B/L NUMBER 99378				DATE SHIPPED 05/10/2018			
WT. SHIPPED 8940.000 LB				NO. OF PIECES 000005				GOVT. CONTRACT NO.			
CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26154 USA <i>Dave Dunbarger</i> Dave Dunbarger - Laboratory Manager											

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.12" DEADZONE Class A
AMS QQ-A-250/12A
AMS STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
ASTM B209-14
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CMMP025 REV U
CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
OPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
MMS 159T
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001778810	1,790.000	811.930	9422779	01		
1001778810	1,790.000	811.930	9422779	02		
1001778812	1,790.000	811.930	9422779	04		
1001778815	1,785.000	809.662	9418218	03		
1001778815	1,785.000	809.662	9418218	04		

Lot: 9422779 (See test results below)

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	71.5	72.2	60.6	61.2	11.5	11.5	

Revised Certification


Constellium

 Accredited
 Nadcap
 Machine Tooling Laboratory

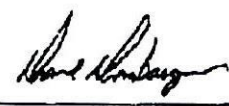
CERTIFIED TEST REPORT
 Constellium Rolled Products
 Ravenswood, LLC
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A M CASTLE & COMPANY

4175 ROYAL DRIVE
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A M CASTLE		110859346		4776		INCLUSION		Serial:20180510-0110659346		Pg 2 of 3																												
CUSTOMER PURCHASE ORDER NO. & ITEM 456851						Constellium ORDER NO. 234774			CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 58 RAVENSWOOD, WV 26164 USA  Dave Dunberger - Laboratory Manager																													
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		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report																														
Direction	Tests	Min	Max	Min	Max	Min	Max																															
LT	02	493	498	418	422	11.5	11.5																															
Conductivity % IACS MIN 40.7 MAX 41.5 % MS/M MIN 23.6 MAX 24.1																																						
Chemistry (Actual) <table border="1"> <thead> <tr> <th></th> <th>SI</th> <th>FE</th> <th>CU</th> <th>MN</th> <th>MG</th> <th>CR</th> <th>ZN</th> <th>TI</th> <th>ZR</th> </tr> </thead> <tbody> <tr> <td>Core</td> <td>0.07</td> <td>0.15</td> <td>1.46</td> <td>0.04</td> <td>2.60</td> <td>0.21</td> <td>5.63</td> <td>0.04</td> <td>0.00</td> </tr> </tbody> </table>													SI	FE	CU	MN	MG	CR	ZN	TI	ZR	Core	0.07	0.15	1.46	0.04	2.60	0.21	5.63	0.04	0.00							
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OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER																																						
All material contained in this lot was cast and manufactured in the USA																																						
Lot 9418218 (See test results below) Tensile - Room Temperature (US) <table border="1"> <thead> <tr> <th colspan="2"></th> <th colspan="2">Ultimate (KSI)</th> <th colspan="2">Yield (KSI)</th> <th colspan="2">Elongation (%)</th> <th>Report</th> </tr> <tr> <th>Direction</th> <th>Tests</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th></th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>02</td> <td>74.2</td> <td>74.7</td> <td>63.6</td> <td>63.8</td> <td>12.0</td> <td>12.0</td> <td></td> </tr> </tbody> </table>														Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report	Direction	Tests	Min	Max	Min	Max	Min	Max		LT	02	74.2	74.7	63.6	63.8	12.0	12.0	
		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report																														
Direction	Tests	Min	Max	Min	Max	Min	Max																															
LT	02	74.2	74.7	63.6	63.8	12.0	12.0																															

Revised Certification


Constellium

Nadcap
 National Tooling Association

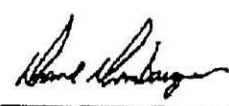
CERTIFIED TEST REPORT
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Conductivity % IACS MIN 39.4 MAX 40.4 % MS/M MIN 22.9 MAX 23.4																																									
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QUALITY TEXTS: AMC CA-15413B R 6																																									
Revised Certification: "Also conforms with CMMP 025 Rev V" - customer request. "Revision certifies the material properties and condition as it originally left the mill, not as of date of revision"																																									
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSFARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; E557 DUNS Number: 090570149; CAGE Code: 1YWLG Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"																																									
P-860-155D REVISED: 01 2018																																									

RVW QUALITY

 05566-1
 Pat m...
 5/16/18